

REMARKS

This Response is responsive to the Final Office Action mailed September 15, 2009 ("Office Action").

Claim Amendments

Claim 17 has been amended to incorporate the limitations of claim 25. Accordingly, claim 25 has been cancelled without prejudice. These amendments are consistent with the specification and do not introduce new matter.

Claim 17 has also been amended to provide that the first purification bed comprises "an inert material having a high heat capacity." This amendment is consistent with the specification and does not introduce new matter. For example, please see the following excerpt from Paragraph 0007: "Inert material with a high heat capacity can also be dispersed with the hydrogen fixing material within the first purification bed."

Claim Rejections – 35 USC § 103(a)

Claims 17, 20, 21, 23-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Stevens (US 2002/0155329) in view of Monzyk et al. (US 6,503,298).

Amended claim 17 discloses a method for generating a hydrogen-rich reformat, the method comprising the steps of (1) reacting a hydrocarbon fuel in a catalyst bed comprising a reforming catalyst and carbon dioxide fixing material to produce a reformat comprising hydrogen and carbon dioxide, the carbon dioxide fixing material fixing at least a portion of the carbon dioxide in the reformat to

produce an intermediate reformat; (2) removing hydrogen from the intermediate reformat by flowing the intermediate reformat through a first purification bed comprising an inert material having a high heat capacity and a hydrogen fixing material to produce a hydrogen-depleted gas and fixed hydrogen wherein the hydrogen fixing material comprises a metal hydride-forming material; and (3) releasing the fixed hydrogen from the first purification bed to produce a hydrogen-rich gas

According to the Examiner, Stevens fails to explicitly disclose "the hydrogen fixing material comprises a metal hydride." (Office Action, p. 3.) According to the Examiner, Monzyk teaches "the hydrogen fixing material comprises a metal hydride." (Office Action, p. 5.) However, a review of Monzyk reveals that Monzyk is silent with respect to "an inert material with a high heat capacity" as discloses in amended claim 17. As a result, reconsideration and withdrawal of this rejection of claim 17 and claims 20, 21, and 23-30 which depend from claim 17 is respectfully requested.

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Stevens (US 2002/0155329) in view of Monzyk et al. (US 6,503,298), as applied to claim 17, and further in view of Golben (US 5,250,368). Claim 18 is believed to be in condition for allowance by virtue of its dependency from claim 17. Applicants respectfully request reconsideration and withdrawal of this rejection of claim 18.

Claim 19 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Stevens (US 2002/0155329) in view of Monzyk et al. (US 6,503,298), as applied to claim 17, and further evidenced by Heung (US 5,958,098). Claim 19 is believed to be in condition for allowance by virtue of its dependency from claim 17.

Applicants respectfully request reconsideration and withdrawal of this rejection of claim 19.

Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Stevens (US 2002/0155329) in view of Monzyk et al. (US 6,503,298), as applied to claim 17, and further evidenced by Schiodt et al. (US 2001/0055560). Claim 22 is believed to be in condition for allowance by virtue of its dependency from claim 17. Applicants respectfully request reconsideration and withdrawal of this rejection of claim 22.

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Conclusion

All of the stated grounds of objection and rejection are believed to have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

U.S.S.N. 10/827,187
RCE
March 11, 2010

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,



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March 11, 2010
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